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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,727	01/27/2004	Roland Gallay	M101US	3438

7590 02/15/2007  
Maxwell Technologies, Inc.  
Att. Intellectual Property Dept.  
9244 Balboa Ave.  
San Diego, CA 92123

EXAMINER
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HA, NGUYEN T

ART UNIT	PAPER NUMBER
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2831

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/766,727	<b>Applicant(s)</b> GALLAY ET AL.	
	<b>Examiner</b> Nguyen T Ha	<b>Art Unit</b> 2831	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 21-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) *  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### **Request Continuation Examination**

1. The request filed on 5/23/2003 for a Request Continuation Examination (RCE) under 37 CFR 1.53(d) based on parent Application No. 10/766,727 is acceptable and a RCE has been established. An action on the RCE follows.

### ***Response to Amendment***

2. The examiner acknowledges the applicant's submission of the amendment dated 11/27/2006. At this point, claim 20 has been cancelled, claim 19 has been amended, and claims 26-29 have been added. Thus, claims 1-19, and 21-29 are pending in the instant application.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-14, 16-19, and 26-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahon (US 2005/0083021).

Regarding claim 1, Mahon discloses a capacitor (figures 1-2) comprising:

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- a housing (2), the housing comprising dimensions that conform to standardized battery dimensions; and
- a capacitor cell (6), the cell disposed in the housing and electrically coupled to the housing.

Regarding claims 2-5, Mahon discloses the housing comprises a standard D-cell sized battery (claim 2), standard C-cell sized battery (claim 3), standard AA-cell sized battery (claim 4) and a standard AAA-cell sized battery (claim 5) form factor (paragraph 0024-0027).

Regarding claim 6, Mahon further discloses the housing comprises one or more connectors/terminals (3 and 4), wherein the connectors adapted for connection with an electrical circuit (figure 1-2).

Regarding claim 7, Mahon discloses the capacitor cell comprises a double-layer capacitor (paragraph 0030).

Regarding claims 8-10, Mahon discloses the double-layer capacitor comprising a dry particle based electrode/carbon electrode (paragraph 0068, and figures 7-9).

Regarding claim 11, Mahon discloses the capacitor comprising a nominal maximum operating voltage of about 2.5 to 3.0 volts (paragraph 0076).

Regarding claim 12, it is inherent that the capacitor's as taught by Mahon comprises a capacitance of about 0.1 Farad or the above.

Regarding claims 13-14, Mahon discloses the capacitor comprises a specific energy density at about 2.5 volts (paragraph 0077,  $P = I^2R$ ).

Regarding claim 16, Mahon discloses the housing comprises a standardized power tool battery sized form factor (figures 3-4).

Regarding claims 17 & 19, Mahon discloses a double layer capacitor (figures 1-2) comprising:

- a housing (2); the housing comprising dimensions that conform to standardized battery dimensions (paragraph 0024-0027).
- a double layer capacitor (6) electrically coupled to the housing within the housing (figure 2).

Regarding claim 18, the method steps of making a battery-sized capacitor are inherent in the structure device as disclosed by Mahon's:

- providing a double layer capacitor (6);
- providing a battery sized housing/vessel (2), the housing including an open end (figure 1-2);
- inserting the double layer capacitor into the open end of the housing (figures 1-2); and
- sealing the open end of the housing (figures 1-2).

Regarding claim 26, Mahon discloses a capacitor (figures 1-2) comprising:

- a cylindrical housing (2) comprising standardized battery form factor dimensions (paragraph 0024-0027), the cylindrical housing comprising a first terminal (3) on a first end of the cylindrical housing and a second terminal (4) on the second end of the cylindrical housing opposite the first end of the cylindrical housing (figure 1), and

- a capacitor cell (6) disposed within the cylindrical housing, the capacitor cell comprising a first collector disposed on a first side of the capacitor cell and electrically connected to the first terminal of the cylindrical housing and a second collector electrically disposed on a second side of the capacitor cell opposite the first side and connected to the second terminal of the cylindrical housing (figures 1-2).

Regarding claim 27, Mahon discloses the capacitor cell comprises a double layer capacitor (paragraph 0058).

Regarding claim 28, Mahon discloses the capacitor cell comprises a rolled electrode capacitor cell (figure 1).

Regarding claim 29, it is inherent that the first terminal may receive energy with positive or negative polarity as taught by Mahon.

5. Claims 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Noguchi et al. (US 6,433,997).

Regarding claims 21 & 23, Noguchi et al. disclose a battery sized energy storage device/double-layer capacitor (figure 1) comprising:

- a housing (2, column 2, line 39); and
- a rolled electrode (3, column 2, line 39), the rolled electrode including two collectors (11 & 14, column 5, lines 18-19), wherein the two collectors and the housing comprise substantially the same metal (column 2, line 50 and 59-60 and column 3, lines 24-25), wherein the collectors (11 & 14) are coupled to the housing to form an electrical connection (figure 1).

Regarding claim 22, Noguchi et al. disclose the electrical connection providing a polarity independent path for application of energy to the energy storage device (figure 2).

Regarding claim 24, Noguchi et al. disclose the electrical connection being able to receive energy with positive or negative polarity (6 or 7, figure 1).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahon (US 2005/0083021).

Regarding claim 15, Mahon discloses all the claimed limitations discussed above with respect to claim 2 above, except for the housing comprising an outer diameter of

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33 +0/-1 mm and a height of 61.5=0/-2 mm. It would have been an obvious matter of design choice to have the housing comprise an outer diameter of 33 +0/-1 mm and a height of 61.5=0/-2 mm, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose, 105 USPQ 237 (CCPA 1955).*

8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al. (US 6,433,997) in view of O'phelan et al. (US 6,509,588).

Regarding claim 25, Noguchi et al. disclose all the claimed limitations discussed above with respect to claim 21, except for the electrical connection comprising a laser weld.

**O'phelan et al. teach** a capacitor having connection members 206 and 306 being laser edge-welded (column 7, lines 36-37).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the laser weld of O'phelan with Noguchi for welding the connection in order to prevent damage to the connection.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Ha whose telephone number is 571-272-1974. The examiner can normally be reached on Monday-Friday from 8:30AM to 6:00PM.

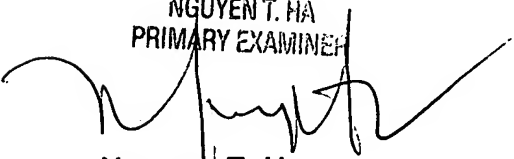


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NGUYEN T. HA  
PRIMARY EXAMINER



Nguyen T. Ha  
February 9, 2007